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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/621,825	07/21/2000	Jung Tae Kang	06192.0146AA	4506

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EXAMINER

NGUYEN, JIMMY H

ART UNIT PAPER NUMBER

2673

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/621,825

Applicant(s)

KANG ET AL.

Examiner

Jimmy H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 23 July 2003.
- 2a) This action is **FINAL**.
- 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-22 is/are pending in the application.
 - 4a) Of the above claim(s) 2-4, 6-8 and 14-17 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1, 5, 9-13 and 18-22 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 - 1. Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____.
 - 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 7.
- 4) Interview Summary (PTO-413) Paper No(s) _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other:

DETAILED ACTION

1. This Office Action is made in response to applicant's amendment filed on 07/23/2003 (entered into the file wrapper as Paper No. 9). Claims 1-22 are currently pending in the application. An action follows below:

2. It is noted Applicants that claims 2-4 are directly or indirectly amended to be drawn to nonelected species I, as asserted by Applicants (see Amendment, page 12, line 9 through page 3, line 3). Accordingly, claims 2-4, 6-8 and 14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected species I and III, and claims 1, 5, 9-13 and 18-22 are currently considered as follows:

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 5, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yun et al (USPN: 5,835,139), hereinafter Yun, and further in view of Murai (USPN: 5,986,726).

As per claims 1, 5 and 18, Yun discloses an information processing apparatus (see a LCD device as shown in fig. 7) comprising a LCD module (LCD assembly structure as shown in fig. 6) including a backlight assembly (an assembly including elements 110-180, see fig. 6) having a light source portion (a luminescent lamp 110) and a wedge-shaped light conducting plate (130), a LCD panel (a liquid crystal panel 300) having a source printed circuit board on one side of the LCD panel (see fig. 6), a mold frame (a first support frame 190) and a chassis (a second frame

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support 400); and an information processing module (a driving circuit board 23, col. 2, lines 18-20) having a LCD panel driving circuit (a control circuit, col. 2, lines 7-10) and located behind the rear part of the backlight unit (col. 2, lines 16-20). Accordingly, the difference between the claimed invention as specified in claims above and the Yun reference is that Yun does not disclose expressly the information processing module (23) directly attached on a rear plane of the mold frame (claim 18, line 11), and the particular shapes of the mold frame and the chassis, in the manner as recited in the claims 1 and 5.

However, as noting in fig. 5, Murai discloses expressly the information processing module (a driver circuit board 4) directly attached to a rear plane of the mold frame (a bottom portion of a metal sheet 1), for generating and supplying a driving signal to drive LCD panel via the source printed circuit board (a driver circuit provided in peripheral edges of the circuit array substrate, col. 5, lines 40-53), and the mold frame formed to be gradually thinner as further advancing from a first side (the side to the right of the light guiding plate 7 and next to the resin frame, as shown in fig. 1) of accepting to place the light source portion toward a second side in opposition to the first side (the side to the right of the light guiding plate 7), further see col. 4, lines 16-39. It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to utilize Murai's teachings above, i.e., locating the information processing module (23) on a rear plane of the mold frame and forming the mold frame as well as the chassis to be gradually thinner as further advancing from a first side of accepting to place the light source portion toward a second side in opposition to the first side, in the apparatus of Yun because this would provide an apparatus with features of small size, thin thickness and light weight, and the apparatus which substantially prevents electromagnetic wave noises generated by

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a driver circuit board from interfering with other electronic components, as taught by Murai (col. 2, lines 1-11).

Regarding to claim 19, Yun further teaches the LCD module and the information processing module, both fixed together between a front case (520) and a rear case (500) coupled to each other (fig. 7, col. 4, lines 55-65).

5. Claims 9-13 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yun in view of Murai, as applied to claims 5 and 18 above, and further in view of Williamson et al. (USPN: 5,475,381), hereinafter Williamson.

As per claims 9 and 20, as discussed above, Yun discloses an information processing module (a driving circuit board 23, col. 2, lines 18-20) having a LCD panel driving circuit (a control circuit, col. 2, lines 7-10), but does not disclose expressly that the information processing module comprising a central processing unit, means for storing or supplying data and signal processing means for processing video data. Further, Yun discloses that the body of the computer is in a separate housing. Furthermore, Yun's body of the computer inherently comprising a central processing unit, means for storing or supplying data and signal processing means for processing video data, in order to display an image on the display unit. Accordingly, the difference between the claimed invention as specified in claim above and the combination of Yun and Murai references is that the central processing unit, means for storing or supplying data and signal processing means for processing video data are all located in a separate housing, instead on the module containing a LCD panel driving circuit. However, as noting in figs. 1-2, Williamson discloses an information processing circuit located in the rear of the LCD module (52) and comprising a LCD panel driving circuit (a LCD controller 58), a central processing unit

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(a microcontroller 56, col. 3, lines 27-32), means for storing or supplying data (a storage unit 61, col. 3, lines 38-41) and signal processing means for processing video data (memory controller 57). It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to utilize Williamson's teachings above, i.e., locating a central processing unit, means for storing or supplying data and signal processing means for processing video data on the same module which the LCD panel driving circuit is integrated on, in the apparatus of Yun because this would reduce the size of the apparatus which is small enough to fit into a pocket, as taught by Williamson (col. 2, lines 54-60).

Regarding to claim 10, see the rejection to claims 1, 5 and 18 above.

Regarding to claim 11, see the rejection to claim 19 above.

Regarding to claims 12 and 21, Williamson further teaches the storage unit (61) comprising RAMs (62, 63) and ROM (64) (col. 3, lines 38-41).

Regarding to claims 13 and 22, Williamson further teaches the information processing module further comprising interfacing means for interfacing data with an external information processing module (col. 7, lines 8-10), sound control means (system speaker 72, col. 4, lines 17-19) and communicating means for performing external communication (IR emitter 53 and IR receiver 54, see fig. 2).

Response to Arguments

6. The request for withdrawal of the specification objection is approved in view of the amendment filed 07/23/2003.

7. Applicants' arguments filed 07/23/2003 with respect to the rejections under 35 USC 103, have been fully considered but they are not persuasive because as follows:

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With respect to claims 1 and 5, applicants argued that the combination of Yun and Murai does not teach a chassis formed to be gradually thinner as further advancing from a first side adjoining said light source portion toward a second side facing said first side, pages 11-14. The Examiner disagrees, as discussed above, Murai teaches that the particular shape of the mold frame, i.e., the mold frame formed to be gradually thinner as further advancing from a first side of accepting to place the light source portion toward a second side in opposition to the first side, would provide a display device with features of small size, thin thickness and light weight, as taught by Murai (col. 2, lines 1-3). Further, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to form the mold frame of Yun as well as the chassis of Yun to be gradually thinner, as further advancing from a first side of accepting to place the light source portion toward a second side in opposition to the first side, in view of the teaching in the Murai reference. Furthermore, it would have been within the level of skill in the art and obvious to one having ordinary skill to engineering design the shape an element as desired as was judicially recognized in re Dailey, 149 USPQ 47 (CCPA 1976).

With respect to claims 2-4, Applicants' arguments on pages 12-13 have been fully considered but they are not persuasive because the amendment to independent claim 2 causes this claim to be withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected species I, see above.

For the above reasons, it is believed that the rejections should be sustained.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is (703) 306-5422. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at (703) 305-4938.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

JHN

October 1, 2003



BIPIN SHALWALA
SUPERVISORY PATENT CLERK
TECHNOLOGY CENTER 2600